CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 91-054

UPDATING WASTE DISCHARGE REQUIREMENTS FOR:

CITY AND COUNTY OF SAN FRANCISCO
LOG CABIN RANCH SCHOOL
LA HONDA, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

1. The City and County of San Francisco, hereinafter referred to as the discharger, owns and operates Log Cabin Ranch School (LCRS) and its wastewater system. LCRS is a school for juvenile delinquents. Hidden Valley Ranch (HVR) is an abandoned federal prison which was recently rented to the State of California to house median-security state prisoners. HVR transports its sewage to LCRS for treatment and disposal. Currently, LCRS treats domestic sewage from about 100 people in LCRS and about 80 people in HVR, amounting to a total of about 21,000 gallons per day (gpd).

2. LCRS's sewage treatment facilities consist of a Walker process contact stabilization plant (design capacity of about 36,000 GPD), chlorination by addition of hypochlorite solution into a mixing tank, and discharge to a holding pond (Verde Lake). Two oxidation ponds adjacent to the treatment plant are not currently in use. During the summer, treated wastewater is often pumped directly to the spray irrigation site. During winter months, wastewater is withdrawn occasionally from the holding pond and sprayed on nearby hilly pasture land in order to lower the level of the holding pond.

3. LCRS is located off Pescadero Road near La Honda, in San Mateo County. LCRS is within the watershed of Mindego Creek, which drains to Alpine Creek. Alpine Creek is the drinking water supply for San Mateo County Service Area No. 7 and several private landowners.

4. On August 15, 1978, the Board adopted Order No. 78-64 prescribing waste discharge requirements for LCRS's wastewater system.

5. A Regional Board site inspection at LCRS in April 1986 found that the facility did not have adequate facilities to prevent wet weather overflows from the holding pond. Staff observed that surface runoff could flow from the hillside area and school grounds into the sewage effluent holding pond. LCRS reported that overflow of the holding pond occured occasionally during wet weather.

6. On June 9, 1986, the Board issued Cleanup and Abatement Order No. 86-008, establishing a time schedule for construction of drainage control in order to prevent sewage overflows from the holding pond. Adequate measures to prevent the holding pond from overflowing were never constructed. Because of the drought, no overflows from the holding pond have been reported since 1986.

7. In November 1990, LCRS received approximately $275,000 from the City and County of San Francisco to improve its wastewater treatment and disposal system. Engineering design is currently in progress. LCR's intends to rehabilitate the oxidation ponds, and use them instead of Lake Verde as a holding pond. The Oxidation ponds will be lined and have a capacity of 800,000 gallons with a 2-foot freeboard. Lake Verde will receive only storm runoff from adjacent area. Tertiary effluent would be used to irrigate LCRS's ballfield and a proposed organic garden.

8. LCRS intends to build tertiary treatment units to expand the allowable uses of plant effluent to include unrestricted landscape irrigation.

9. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Gregorio Creek and contiguous waters.

10. The wastewater reclamation requirements are in conformance with the statewide reclamation critera established by the State Department of Health.

11. The beneficial uses of San Gregorio Creek and contiguous water bodies (including Alpine Creek) are:

    - Municipal and Domestic Supply
    - Agricultural water supply
    - Water contact and non-contact recreation
    - Wildlife habitat
    - Warm fresh water habitat
    - Cold fresh water habitat
    - Fish migration and spawning
    - Preservation of rare and endangered species

12. This project involves the operation of an existing publicly-owned sewage treatment and disposal facility with negligible or no expansion of use beyond that previously existing and as such is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

13. The discharger and interested agencies and persons have been notified of Board's intent to update requirements for the existing discharge and have been provided with the opportunity for a public hearing and opportunity to submit their written views and recommendations.

14. The Board at a public meeting heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the City and County of San Francisco, in order to meeting the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with following:

A. Discharge Prohibitions

1. There shall be no bypass or overflow of sewage from the collection, treatment, or disposal system to waters of the State.

2. No wastewater shall be applied to the spray disposal area during periods of rainfall, when rainfall is anticipated, for 48 hours after a rainfall, or when soils in the spray disposal area are saturated to the point where wastewater runoff is likely.

3. The average dry weather flow shall not exceed 36,000 gpd. Average shall be determined over three consecutive dry weather months each year.

4. Wastewater shall not be allowed to escape from the discharger's spray disposal area into waters of the State via surface flow, resurfacing after percolation, or airborne spray.

5. Wastewater ponding which could provide a breeding area for mosquitoes is prohibited.

6. The collection, treatment and disposal of wastewater shall not impair ground water quality.

B. Specifications

1. The treatment, distribution or reuse of wastewater shall not create a nuisance as defined in Section 13050(M) of the California Water Code.

2. Treated wastewater to be used for spray irrigation of the hillside pasture area shall meet the following quality limits at all times:

a.	5-day BOD	40.0 mg/l, maximum
b.	Total coliform bacteria	23 MPN/100 ml (7-sample median) 240 MPN/100 ml (single-sample maximum)

3. Treated wastewater to be used for spray irrigation of the ballfield, or irrigation of food crops, shall be at all times a coagulated, clarified, filtered wastewater which meets the following quality requirements at all times:

a.	BOD (5-day)	40 mg/l (maximum)
b.	Total coliform bacteria	2.2MPN/100 ml (7-sample median) 23 MPN/100 ml (single-sample maximum)
c.	Turbidity	2 NTU (daily average) 5 NTU (95th percentile)*

* value not be exceeded more than 5% of the time in any 24-hour period.

4. Treated wastewater in the holding pond shall not exceed the following limits at any place within one foot of the pond surface in any grab sample:

a.	Dissolved oxygen	2.0 mg/l (minimum)
b.	Dissolved sulfide	0.1 mg/l (maximum)
c.	pH	6.0 unit (minimum) 9.0 unit (maximum)

5. A minimum freeboard of two feet shall be maintained in the holding pond at all times.

6. Wastewater disposal shall be limited to the area specified in Attachment 2 of this Order unless written authorization is obtained from the Board's Executive Officer for the use of additional area.

7. The holding pond shall have sufficient capacity to contain all wastewater generated from the facility during the wettest rainfall period expected once in ten years.

8. All above ground equipment, including pumps, piping and valves, etc., which may at any time contain waste shall be adequately and clearly identified with warning signs and user shall make all necessary provisions, in addition, to inform affected persons that the treated wastewater is sewage and is unfit for human consumption.

9. The public shall be effectively excluded from the treatment plant. The holding pond and spray disposal areas shall be clearly identified with posted notices warning the public of the presence of treated wastewater.

C. Provisions

1. The discharger shall comply with all sections of the Order immediately upon adoption.

2. The discharger shall comply with the following schedule:

Task	Completion Date
(1) Submit the 1st progress report on facility improvement on wastewater treatment and disposal system.	May 30, 1991
(2) Submit the 2nd progress report on facility improvement on wastewater treatment and disposal system.	August 30, 1991
(3) Submit a detailed report to show the facility is in full compliance.	November 30, 1991

3. The treatment, disposal, storage, or processing of sewage sludge shall not cause waste material to be in any position where it is, or can be, carried from the sludge treatment, disposal, storage, or processing site and be deposited in waters of the State.

4. The discharger shall permit the Regional Board or its authorized representative:

   a. Entry upon premises in which an effluent source is located or in which any required records are kept.

   b. Access to copy any records required to be kept under terms and conditions of this Order.

   c. Inspection of any monitoring equipment or method required by this Order.

   d. Sampling of any discharge.

5. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 1st of each year. Documentation of operator input and review shall accompany each annual update.

6. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

7. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 78-64 and Order No. 78-64 is hereby rescinded. Order No. 86-008 is also rescinded.

8. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on April 17, 1991.

STEVEN R. RITCHIE
Executive Officer

Attachment:
Self-Monitoring Program
Map of Reclaimed Water Irrigation Areas

A1 = 0.8 Acres
A2 = 4.5 Acres
A3 = 2.3 Acres

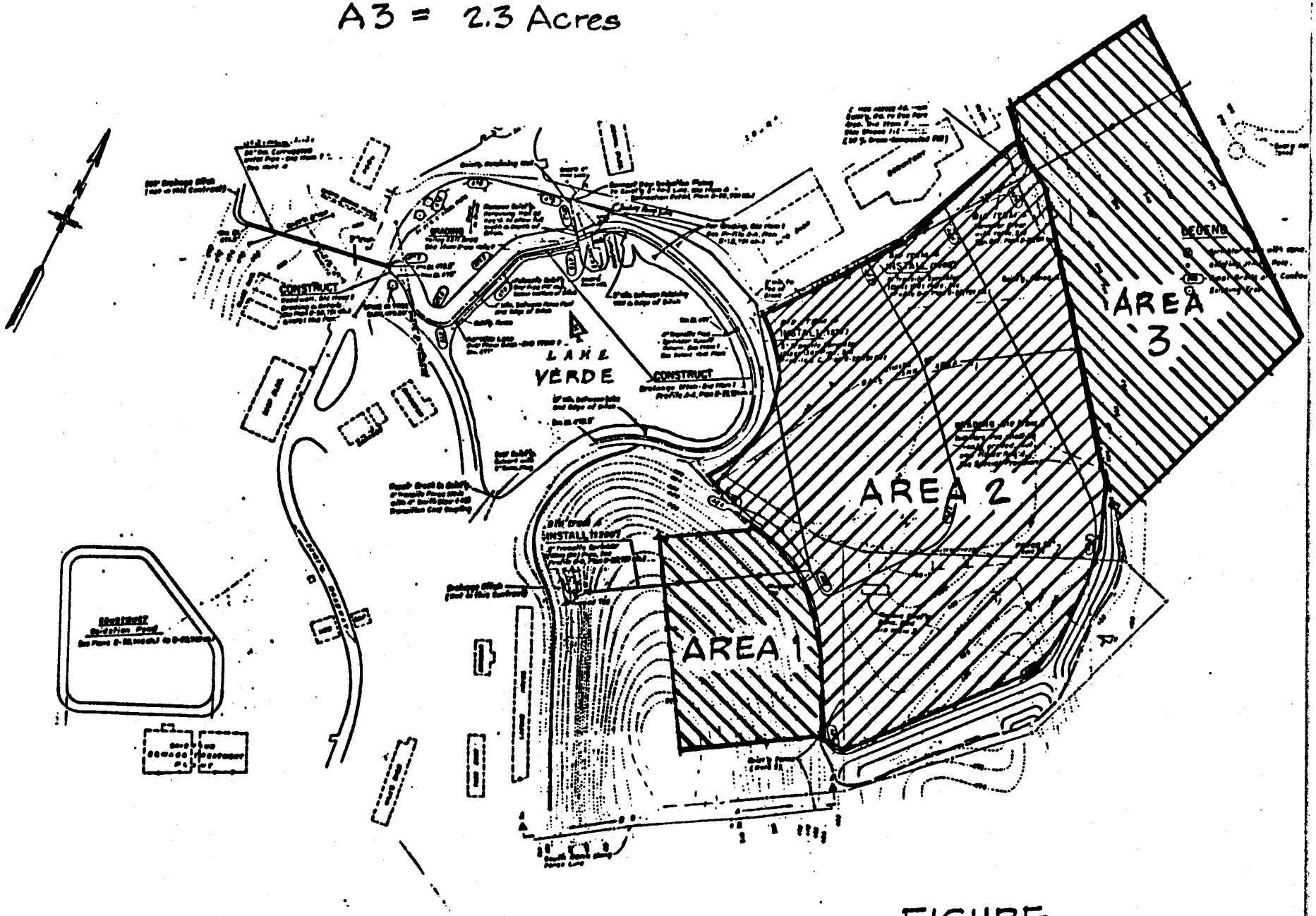


FIGURE
LAND AREA FOR IRRIGATION

ATTACHMENT II

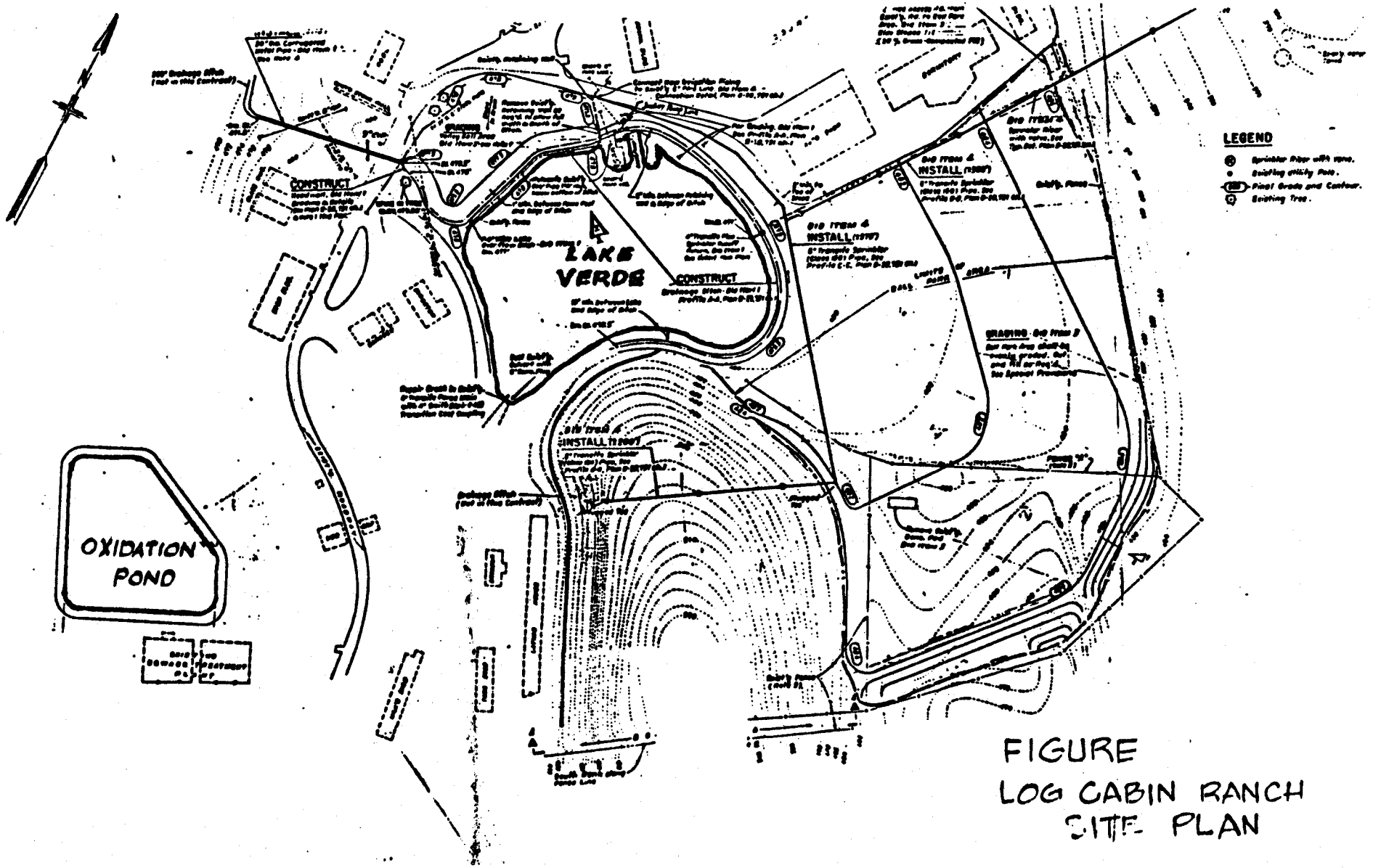
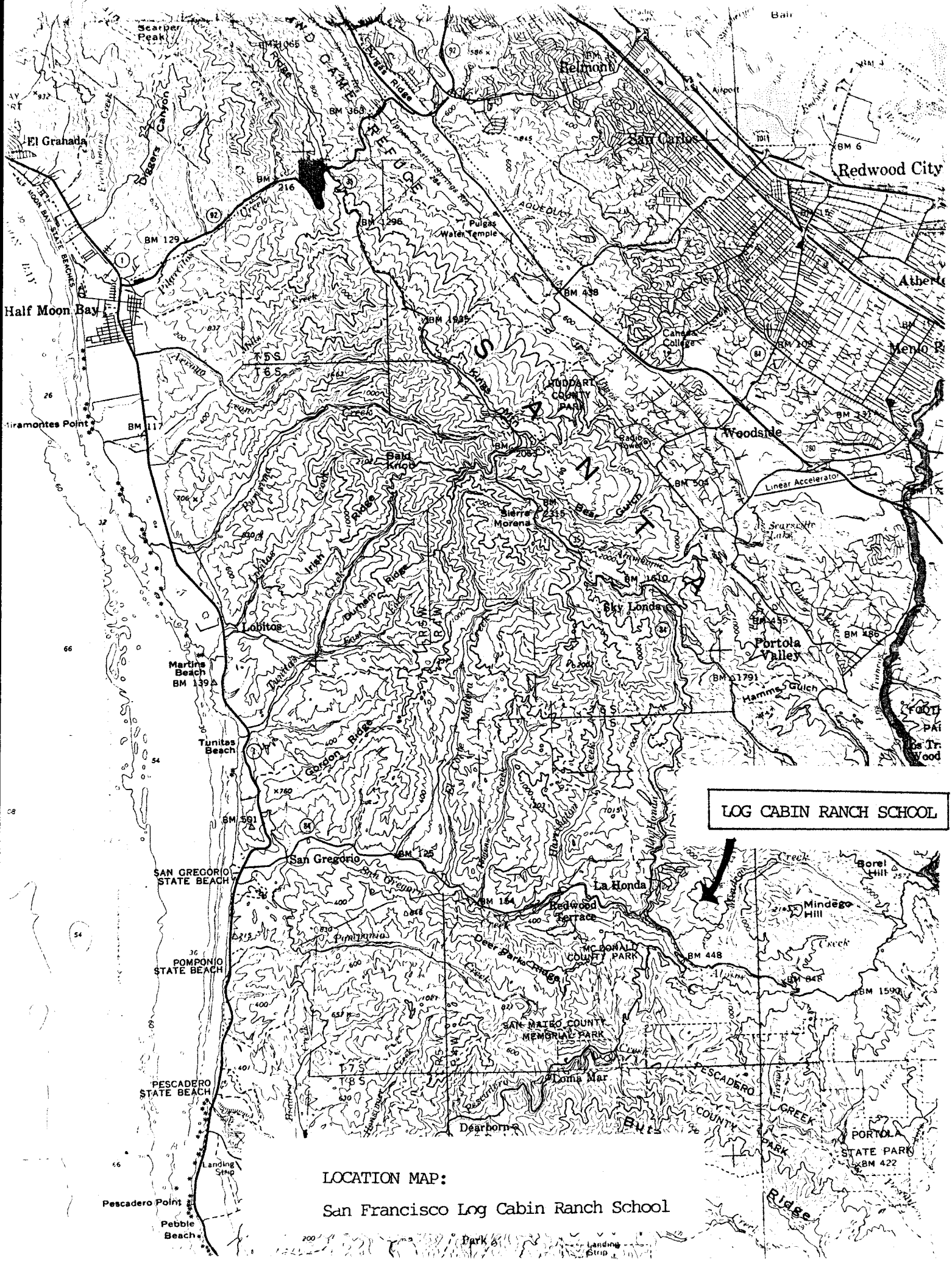


FIGURE
LOG CABIN RANCH
SITE PLAN



LOCATION MAP:

San Francisco Log Cabin Ranch School

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

City and County of San Francisco
Log Cabin Ranch School
La Honda, San Mateo County

ORDER NO. 91-054

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

Analyses, observation, and examinations shall be performed according to the specifications shown in Table I.

A. EFFLUENT

Station	Description
E-001	At any point in the reclaimed wastewater conveyance line between the point of discharge into the holding pond and the point at which all wastewater tributary to that line is present.

B. LAND OBSERVATION

Station	Description
L-1 thru L-'n'	Located along the periphery of the wastewater disposal areas at equidistant intervals, not to exceed 500 feet.

C. IMPOUNDMENT FACILITIES

Station	Description
P-1 thru P'-'n'	Located along the perimeter levees of the holding pond containing wastewater at equidistant intervals not to exceed 100 feet.
R-1 thru R-2	At some point in the holding ponds containing wastewater, at least 5 feet from the edge and within 1 foot of the surface.

(A sketch showing the locations of these stations should accompany each report.)

II. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis shall be that given in Table 1. Written reports shall be filed for each calender month.

III. NOTIFICATION

A. The discharger shall promptly notify the Regional Board, and San Mateo County Health Department if wastewater is found overflowing from the oxidation ponds, holding pond, or spray disposal areas in violation of the Regional Board's Waste Discharge Requirements.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 91-054.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.

STEVEN R. RITCHIE
Executive Officer

Effective Date: April 17, 1991

Attachment:
Table I
Part A

TABLE I

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001				All L Sta.		All P Sta.		R				
TYPE OF SAMPLE	Grab	Cont			Observation		Observation		Grab				
Flow Rate (mgd)		D											
BOD, 5-day, 20° C, or COD (mg/l & kg/day)	W												
Chlorine Residual & Dosage (mg/l & kg/day)	D												
Settleable Matter (ml/1-hr. & cu. ft./day)													
Total Suspended Matter (mg/l & kg/day)													
Oil & Grease (mg/l & kg/day)													
Coliform (Total) (1) (MPN/100 ml) per req't	2/W												
Fish Toxicity, 96-hr. TL_{50} % Survival in undiluted waste													
Ammonia Nitrogen (mg/l & kg/day)													
Nitrate Nitrogen (mg/l & kg/day)													
Nitrite Nitrogen (mg/l & kg/day)													
Total Organic Nitrogen (mg/l & kg/day)													
Total Phosphate (mg/l & kg/day)													
Turbidity (NTU) (2)		D											
pH (units)									W				
Dissolved Oxygen (mg/l and % Saturation)	W								W				
Temperature (°C)									W				
Apparent Color (color units)													
Secchi Disc (inches)													
Sulfides (if DO < 5.0 mg/l) Total & Dissolved (mg/l)	W								W				
Arsenic (mg/l & kg/day)													
Cadmium (mg/l & kg/day)													
Chromium, Total (mg/l & kg/day)													
Copper (mg/l & kg/day)													
Cyanide (mg/l & kg/day)													
Silver (mg/l & kg/day													
Lead (mg/l & kg/day)													

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001				All L Sta.		All P Sta.		R				
TYPE OF SAMPLE	Grab				Observation		Observation		Grab				
Mercury (mg/l & kg/day)													
Nickel (mg/l & kg/day)													
Zinc (mg/l & kg/day)													
PHENOLIC COMPOUNDS (mg/l & kg/day)													
All Applicable Standard Observations (3)					W		W		W				
Bottom Sediment Analyses and Observations													
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)													

Observations shall include evidence of seepage outside reclaimed wastewater application area.

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours (used when discharge does not continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater stations

FREQUENCY OF SAMPLING

E = each occurence
H = once each hour
D = once each day
W = once each week
M = once each month
Y = once each year
2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = once in March and once in September
Q = quarterly, once in March, June, Sept. and December
2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

Self Monitoring Report Table I Footnotes:

1. Sampling frequency shall be increased to 5/week for months in which wastewater is used to irrigate the ballfield or food crops.

2. Sampling for this parameter shall only be required for months in which wastewater is used to irrigate the ballfield or food crops.

3. See Part A (provisions E.4 and E.5) for description of parameter to be checked. Discharger shall check L-stations for evidence of seepage or runoff outside irrigation areas.